

LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



For the Technical Direction of the LTPP Program



Program Area:	General Operations	Directive Number:	GO-16
Date:	December 3, 1998	Supersedes:	N/A
Subject:	LTPP Regional Operations Review Plan - Traffic Program		

The final plan for review of LTPP regional traffic operations has been completed. Attached is LTPP Program Directive GO-16, Version 1.0, November 1998. This document shall be used as part of the QA process on Traffic. The schedule for the initial review will be determined at a later date.

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Regional Contractor Comments

The plan for review of LTPP regional traffic operations has been revised based on your comments and/or suggestions. Those comments are provided below along with our response.

North Atlantic RCOC Comments

1. *Figure A-1 (Traffic data processing procedure) makes no mention of Level 3 processing and the archival of Level 4 data between step 2 (process traffic data through level 4) and step 3 (run level 4 data through Level 4 QC). Our process is to run the Level 3 processing and archive the Level 4 data before proceeding to step 3. It has been our experience and our reason for doing this is that there is not enough hard drive space to store an entire year of data. Therefore we archive the Level 4 data to other storage media (Jaz, Optical) where the entire year of data will be available for the QA (the archival requires Level 3 processing be done first).*

The “RUN Level 3 Processor” step in Figure A-1 has been moved prior to running the Level 4 QC step. This step includes the Level 3 processing and Level 4 archival. The RCOCs can perform the QC step prior to or after the Level 3 processor step.

2. *Review List No. 2 (Office Checks of Traffic Data). “Is the purge list created by using the purge software?” In regards to this point NARO has, for the most part, used a text editor to create the purge lists. The reason for this is that NARO feels the purge software is very cumbersome to use and that using a text editor is easier and more efficient.*

RCOCS can use a text editor to create purge lists; however, they must use the filter software so that QC flags are placed on flagged records. When the operations review team looks at the creation of purge lists, they will be checking to see if they are used in the flagging process appropriately.

North Central RCOC Comments

1. *Page 2, Item (7) refers to “Current FHWA-LTPP Traffic Directives.” Please provide a complete list of all applicable directives either at this point in the text, in review list no. 1, or as an appendix.*

The traffic directives list is dynamic and it is provided to the RCOCS on a monthly basis. Consequently, a list will not be included in the operations review plan document.

2. *Page 3, second paragraph refers to “field and office reviews.” It would appear that there will be no field reviews for the traffic QA review.*

All references to “field reviews” have been removed from the operations review plan document.

3. *Page C-3, first paragraph refers to providing “all IMS traffic tables... to the TSSC...” Please provide a list of the table names, field names, and other details to ensure that all data submitted by NCRCO is consistent with the data provided by the other three regions.*

The RCOCs are required to provide all data contained in the IMS traffic tables, inclusive of all fields within each table. A list of those tables is now contained in Appendix C of the operations review plan document. It is TSSC’s intent to review data submitted to both the CTDB and NIMS.

Southern RCOC Comments

1. *In the flowchart provided as Figure A-1, page A-2, the next to last item refers to running Level 3-1 QC. This software was found to be very problematic in the very early stages of development, and of limited use. Therefore, it has not been used extensively during processing. You may want to confirm with Chaparral the need for continued use of this software, and reaffirm with the regions your findings.*

The Level 2-1 QC processing using the Level 3-1 QC software is not required. RCOCs have the option to visually review the Level 2-1 reports instead of using this software.

2. *Also in Figure A-2, the flowchart lacks items related to the IMS QC steps. These were planned long after the initial development of this flowchart.*

The IMS QC steps have been added to Figure A-2. These steps are given in more detail in the document “Information Management Systems Traffic Upload Instructions.”

3. *On Page B-3, Review List 2, there are a number of items of concern. Does LTPP wish to specify a mechanism for tracking status of processing, for consistency between regions? Otherwise, RCO's will be left to their own imagination to create this.*

Since there is no official mechanism for tracking status of processing, the review check “Is there a mechanism in place to determine the status of processing for data received from SHAs?” has been taken out from the operations review plan document.

Nonetheless, we will pursue this issue during the actual reviews to ensure that the RCOCs are properly managing data processing -- e.g., how does RCOC know that all processing is completed for a particular year? How does RCOC verify that data received have been processed?

4. *Regarding the statement "Are errors reported in the Level 4 log fixed?", some of these errors are not fixed as a general rule, due to truth in data considerations. An example of*

this would be axle spacing or weight range problems. We have been specifically directed not to "edit" the data. Perhaps a more appropriate question would be "Are appropriate errors reported..".

Although, most of the problems cannot be fixed (e.g., bad weights, spacing, etc.), some problems in the Level 4 log can be fixed (bad filenames, data not sorted, missing SHRP data, etc.). The purpose of this check is to verify that the RCOCs are looking at the logs at every processing step. Accordingly, we have changed the wording of the question to say "Are errors from the level 4 log (that can be corrected) fixed?"

5. *The next line in the list asks if all required Level 4 QC tests are performed. To our knowledge there has not been a list of required QC tests defined. Is there a specific set of these tests that LTPP is looking for?*

A list of required QC tests was defined in directive TDP-1, which was never officially issued. Consequently, in response to this comment, a new directive TDP-15: Basic Steps for Processing Monitored Traffic Data has been prepared which lists the minimum requirements. That directive has been submitted to FHWA for review and comment, and should be distributed to the RCOCs well in advance of the review visits.

6. *The last line of the list asks if data backup is occurring at least on a monthly basis. Once again, is there a specific set of data that is required to be backed up monthly?*

Specific backup procedures are left up to the RCOCs. Our only concern is to ensure that data are not lost -- backups should occur on a monthly basis and they should be stored off-site.

7. *One the next page (B-4), what is meant by "are the traffic data organized in a systematic way?" If there is something being looked for specifically, it would be helpful to know to help prepare.*

The review team will be looking for evidence that the RCOCs are keeping their data organized on opticals. This systematic organization requires the RCOCs to keep all level 3-1 for each year on a separate optical from Level 4 data. The traffic software requires optical naming conventions of either Level 4 data or Level 3-1 data by year. The RCOCs should follow this convention to allow easy accessability to the data and to provide for a common/uniform standard for the four RCOCs.

Western RCOC Comments

1. *On page 2, Reference Documents - you should include the SPS processing documentation, SPR reports, TMG Guide and technical memos that are not in the*

directives but could be useful (e.g., technical memos regarding the calculation of load equivalency factors).

As suggested, the SPS Traffic Processing Users Guide and Metric Conversion Software Program Users Manual have been added to the reference documents list. The SPR reports (covered by directive TDP-5), TMG Guide and traffic technical memos have not been added to the reference documents list. Although useful, they are not considered mandatory or required documents.

2. *On page A-2, Traffic Data Processing Procedure - the flow chart should be revised to include the backup of raw data and the archiving of processed data.*

Backup procedures should occur on a monthly basis (as a minimum). These procedures are not dependent on which processing steps have been completed, thus the reason they have not been included on Figure A-1. In all likelihood, the RCOCs will be at different processing levels for different sites. By requiring the RCOCs to backup data at a given processing step, full data backups and thus associated benefits may not be realized. Hence, we would prefer to leave the implementation of backup procedures to the RCOCs. (Note: a draft traffic directive on basic steps for processing monitored traffic data that is currently under review by FHWA specifies that “All regional offices shall have a formal data backup process in place.” At minimum, traffic data shall be backed up on a monthly basis and be stored at an off-site location).